

REMARKS

I. Status of the Claims

Claim 1-20 are pending in the application. Claims 1-8, 10-17, and 20 have been withdrawn. Claim 9 is objected to. Claims 9, 18, and 19 are rejected.

II. Miscellaneous

On page 2 of the Office Action, the Examiner discusses Applicants' election with traverse in the Remarks filed February 11, 2009. The Applicants had asserted that the Hatada reference, disclosing hematopoietic stem cells (HSC), does not disclose the claimed invention because HSC can only form hematopoietic progeny. The Examiner, however, disagrees because "the present specification does not define multipotent adult progenitor cell (MAPC) as a specific population of cells that are non-embryonic and have the ability to differentiate into all three germ layers." The Examiner contends that the term "MAPC" is used in the prior art to disclose such a cell. And the Examiner also contends that the term "is also used to refer to other population of adult progenitor cells, such as multipotent neural progenitor cells."

The Examiner cites Hsieh, *Proc. Natl. Acad. Sci., USA*, 101:16659 (2004), pg. 16659, column 1, line 1. But column 1, line 1, is as follows: "Multipotent neural progenitor cells can differentiate into neurons and glial cells (e.g., astrocytes and oligodendrocytes) in the mammalian CNS." But this does not, in any way, suggest that neural stem cells differentiate into cells of endodermal or mesodermal lineage. Both astrocytes and oligodendrocytes are neural.

Furthermore, Applicants submit that Applicants' specification is clear that the MAPC to which the application is directed would not be construed as neural stem cells. The parent application (WO 01/11011) is incorporated by reference. This application specifically discusses the characteristics of MAPC. Since the claims must be read in light of the specification, Applicants submit that "MAPC" in

the claims is clearly defined by Applicants' specification not to read on neural stem cells that are restricted to producing only neural progeny.

Accordingly, it is not reasonable, in view of Applicants' specification, to construe the term "MAPC" in the claims as "encompasses all multipotent adult progenitor cells, such as the hematopoietic cells disclosed by Hatada."

The Examiner also, however, asserts (page 2 of the Office Action) that hematopoietic cells can differentiate into cell types of all three embryonic germ layers. There is, however, no evidence supporting the scientific accuracy of this statement. If, therefore, the Examiner maintains the requirement for restriction based on this rationale, Applicants request that the Examiner submit scientific evidence showing unequivocally that hematopoietic stem cells can form cells of all three embryonic germ layers, including, as the Examiner asserts, hepatocytes and neural cells.

On page 3 of the Office Action, the Examiner also asserts that, the above argument notwithstanding, the claims of Groups I-III lack unity because the "special technical feature does not make a contribution over the prior art." The Examiner asserts that the special technical feature is "MAPC comprising an exogenously-incorporated sequence, as is disclosed in the parent application WO 01/11011." She cites MAPC comprising the gene for green fluorescent protein operably linked to the oct4 promoter. Applicants point out that the exogenously-introduced sequence in WO 01/11011 is not homologously recombined.

III. The Rejections

A. Rejection Under 35 U.S.C. § 102

On page 4 of the Office Action, claims 9 and 18 are rejected under 35 U.S.C. § 102(a) on the grounds that they are anticipated by Lamming et al., *Blood*, 100:Abstract No. 2574 (2002).

On page 4 of the Office Action, claims 9, 18, and 19 are rejected under 35 U.S.C. § 102(b) on the grounds that they are anticipated by Jahagirdar et al., *Blood*, 98:Abstract No. 547a (2001).

Claims 9, 18, and 19 are also rejected under 35 U.S.C. § 102(b) on the grounds that they are anticipated by WO 01/11011. Applicants traverse these rejections.

The present application claims priority to WO 01/11011, with an effective filing date of, at least, August 4, 2000. Accordingly, these references cannot serve as prior art. Therefore, Applicants request that the rejections be withdrawn.

Applicants believe that fees for a three-month extension of time are due with this filing. The Commissioner is hereby authorized to charge any additional fees required, or to credit any overpayment, to Deposit Account 20-0809. The applicant(s) hereby authorizes the Commissioner under 37 C.F.R. §1.136(a)(3) to treat any paper that is filed in this application which requires an extension of time as incorporating a request for such an extension.

Respectfully submitted,



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